

Claims

[Claim 1]

A joining auxiliary agent for a polyamide resin with which a predetermined joining face of a polyamide resin molded article is coated to ensure the joining strength between the predetermined joining face and another polyamide resin when they are joined together, characterized in that

a compound (1), which cleaves a hydrogen bond in the polyamide resin molded article while assisting the dissolution of the polyamide resin, is contained in an organic solvent capable of dissolving the polyamide resin.

[Claim 2]

The joining auxiliary agent for a polyamide resin according to Claim 1, characterized in that the polyamide resin is dissolved and contained in the joining auxiliary agent.

[Claim 3]

The joining auxiliary agent for a polyamide resin according to Claim 1, characterized in that a compound (2) which maintains the action of cleaving a hydrogen bond of the compound (1) which cleaves a hydrogen bond in the polyamide resin molded article, in the joining auxiliary agent.

[Claim 4]

The joining auxiliary agent for a polyamide resin according to Claim 1, characterized in that the organic solvent

in the joining auxiliary agent is an organic solvent having a molecular weight of 120 or less.

[Claim 5]

The joining auxiliary agent for a polyamide resin according to Claim 1, characterized in that the organic solvent is a mixed solvent of organic solvents composed of plural types thereof.

[Claim 6]

The joining auxiliary agent for a polyamide resin according to Claim 1, characterized in that the compound (1) which cleaves a hydrogen bond in the polyamide resin molded article is 1,3-dihydroxybenzene (CAS number: RN (108-46-3)) or/and 3,5-dihydroxybenzenecarboxylic acid (CAS number: RN (99-10-5)).

[Claim 7]

The joining auxiliary agent for a polyamide resin according to Claim 2, characterized in that the polyamide resin molded article is nylon 6 or nylon 66, and the polyamide resin contained in the joining auxiliary agent is identical to the polyamide resin molded article.

[Claim 8]

The joining auxiliary agent for a polyamide resin according to Claim 3, characterized in that, in the joining auxiliary agent, 1,3-dihydroxybenzene (CAS number: RN (108-46-3)) is contained as the compound (1) which cleaves a

hydrogen bond in the polyamide resin molded article, and the compound (2) which maintains the action of cleaving a hydrogen bond of 1,3-dihydroxybenzene (CAS number: RN (108-46-3)) is 3,5-dihydroxybenzenecarboxylic acid (CAS number: RN (99-10-5)) and, or/and salicylic acid (CAS number: RN (69-72-7)).

[Claim 9]

The joining auxiliary agent for a polyamide resin according to Claim 4, characterized in that the organic solvent is at 50% or higher and 90% or lower by weight.

[Claim 10]

The joining auxiliary agent for a polyamide resin according to Claim 6, characterized in that the compound (1) is at 10% or higher and 50% or lower by weight.

[Claim 11]

The joining auxiliary agent for a polyamide resin according to Claim 7, characterized in that the polyamide resin is at 0.005% or higher and 1.000% or lower by weight.

[Claim 12]

The joining auxiliary agent for a polyamide resin according to Claim 5, characterized in that the organic solvent comprises two types of organic solvents, and the mutual ratio by weight is 0.01 or higher and 100 or lower.

[Claim 13]

The joining auxiliary agent for a polyamide resin

according to Claim 8, characterized in that the mutual ratio by weight of 1,3-dihydroxybenzene (CAS number: RN (108-46-3)) and 3,5-dihydroxybenzenecarboxylic acid (CAS number: RN (99-10-5)) is 0.001 or higher and 1000 or lower.

[Claim 14]

A joining method using a joining auxiliary agent for a polyamide resin according to Claim 1.